

INTERNATIONAL SEARCH REPORT

Express Mail No. EV669612485US

International Application No

PCT/US2004/019489

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, EMBL, WPI Data, Sequence Search, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/18050 A (HOON MARK ; MUELLER KEN (US); RYBA NICK (US); US HEALTH (US); UNIV CAL) 15 March 2001 (2001-03-15)	1, 17, 18
Y	*Sequences 1 and 2, Sequences 19, 20*	2-5, 8-49
A	& LIPSHUTZ R J ET AL: "High density synthetic oligonucleotide arrays" NATURE GENETICS, NEW YORK, NY, US, vol. 21, January 1999 (1999-01), pages 20-24, XP002182912 ISSN: 1061-4036	2
X	----- DATABASE DBSNP 19 July 2001 (2001-07-19), GENAISSANCE: "ss3181754" XP002302158 retrieved from NCNI Database accession no. RS2234233	6, 7, 19, 20, 23
Y	the whole document -/--	8-49



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

25 February 2005

Date of mailing of the international search report

21.03.2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Cornelis, K

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/019489

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	& DATABASE DBSNP 2 January 2001 (2001-01-02), TSC-CSHL: "submitted SNP details" retrieved from NCBI Database accession no. SS2718533 the whole document -----	
X	DATABASE DBSNP 2 January 2001 (2001-01-02), TSC-CSHL: "ss2718533" XP002302159 retrieved from NCBI Database accession no. RS41469 the whole document	6,7
Y	----- KIM UN-KYUNG ET AL: "Positional cloning of the human quantitative trait locus underlying taste sensitivity to phenylthiocarbamide." SCIENCE. 21 FEB 2003, vol. 299, no. 5610, 21 February 2003 (2003-02-21), pages 1221-1225, XP002301614 ISSN: 1095-9203 cited in the application the whole document	8-33,37, 38,45-49
Y	----- KIM UN-KYUNG ET AL: "Positional cloning of the human quantitative trait locus underlying taste sensitivity to phenylthiocarbamide." SCIENCE. 21 FEB 2003, vol. 299, no. 5610, 21 February 2003 (2003-02-21), pages 1221-1225, XP002301614 ISSN: 1095-9203 cited in the application the whole document	8-16, 26-49
X	----- WO 01/77676 A (SENO MYX INC) 18 October 2001 (2001-10-18) the whole document	1,17,18, 34
Y	----- KIM UN-KYUNG ET AL: "Positional cloning of the human quantitative trait locus underlying taste sensitivity to phenylthiocarbamide." SCIENCE. 21 FEB 2003, vol. 299, no. 5610, 21 February 2003 (2003-02-21), pages 1221-1225, XP002301614 ISSN: 1095-9203 cited in the application the whole document	26-49
X	----- DATABASE DBSNP 27 July 2000 (2000-07-27), "refSNP ID: rs597468" XP002317831 retrieved from NCBI Database accession no. RS597468 cited in the application abstract	6,7
Y	----- KIM UN-KYUNG ET AL: "Positional cloning of the human quantitative trait locus underlying taste sensitivity to phenylthiocarbamide." SCIENCE. 21 FEB 2003, vol. 299, no. 5610, 21 February 2003 (2003-02-21), pages 1221-1225, XP002301614 ISSN: 1095-9203 cited in the application the whole document	2-5
X	----- DATABASE Geneseq 'Online! 18 July 2001 (2001-07-18), "Human secreted protein-encoding gene 8 cDNA clone HBBBC71, SEQ ID NO:18." XP002317832 retrieved from EBI accession no. GSN:AAD05499 Database accession no. AAD05499 the whole document	1,20,23
Y	----- KIM UN-KYUNG ET AL: "Positional cloning of the human quantitative trait locus underlying taste sensitivity to phenylthiocarbamide." SCIENCE. 21 FEB 2003, vol. 299, no. 5610, 21 February 2003 (2003-02-21), pages 1221-1225, XP002301614 ISSN: 1095-9203 cited in the application the whole document	26-49
	----- -/--	

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/019489

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE DBSNP C/G SNP at AA 101 of T2R16 25 September 2001 (2001-09-25), "rs2692396" XP002317833 retrieved from NCBI Database accession no. RS2692396 cited in the application abstract</p> <p>-----</p>	1,6,7
X	<p>DATABASE DBSNP 19 July 2001 (2001-07-19), "rs2233988" XP002317834 retrieved from NCBI Database accession no. RS2233988 cited in the application abstract</p> <p>-----</p>	1,6,7,23
Y		2-5
X	<p>DATABASE DBSNP 19 July 2001 (2001-07-19), XP002317835 retrieved from NCBI Database accession no. RS2233989 cited in the application abstract</p> <p>-----</p>	6,7
X	<p>DATABASE DBSNP 2 September 2000 (2000-09-02), XP002317836 retrieved from NCBI Database accession no. RS846664 cited in the application abstract</p> <p>-----</p>	6,7
X	<p>DATABASE DBSNP 2 September 2000 (2000-09-02), XP002317837 retrieved from NCBI Database accession no. RS860170 cited in the application abstract</p> <p>-----</p>	6,7
X	<p>DATABASE DBSNP 5 October 2000 (2000-10-05), XP002317838 retrieved from NCBI Database accession no. RS1204014 cited in the application abstract</p> <p>-----</p>	6,7
	----- -/--	

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/019489

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BERND BUFE: "Dissertation zur Erlangung des Doktorgrades an der Universität Potsdam: Identifizierung und Charakterisierung von Bitterrezeptoren" 'Online! May 2003 (2003-05), , POTSDAM , XP002318541 Retrieved from the Internet: URL: http://pub.ub.uni-potsdam.de/2004/0013/bufe.pdf 'retrieved on 2005-02-17!	1,6,7, 23-25
Y	page 61 - page 64	26-49
X	BUFE BERND ET AL: "The human TAS2R16 receptor mediates bitter taste in response to beta-glucopyranosides" NATURE GENETICS, vol. 32, no. 3, November 2002 (2002-11), pages 397-401, XP002318540 ISSN: 1061-4036 the whole document	1,6,7
X	DATABASE EMBL 'Online! 29 April 2002 (2002-04-29), "Homo sapiens candidate taste receptor TAS2R44 gene, complete cds." XP002318542 retrieved from EBI accession no. EM_PRO:AF494228 Database accession no. AF494228 abstract	1
X	DATABASE EMBL 'Online! 29 April 2002 (2002-04-29), "Homo sapiens candidate taste receptor TAS2R43 gene, complete cds." XP002318543 retrieved from EBI accession no. EM_PRO:AF494237 Database accession no. AF494237 abstract	1
X	DATABASE EMBL 'Online! 29 April 2002 (2002-04-29), "Homo sapiens candidate taste receptor TAS2R49 gene, complete cds." XP002318544 retrieved from EBI accession no. EM_PRO:AF494236 Database accession no. AF494236 abstract	1

-/--

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/006482 A (SENOYX, INC; PRONIN, ALEXEY; CONNOR, JUDY; TANG, HUIXIAN; KEUNG, WALT) 23 January 2003 (2003-01-23) *seq id 9*	1,17,18,34
A	----- SHI PENG ET AL: "Adaptive diversification of bitter taste receptor genes in Mammalian evolution." MOLECULAR BIOLOGY AND EVOLUTION. MAY 2003, vol. 20, no. 5, May 2003 (2003-05), pages 805-814, XP002302157 ISSN: 0737-4038 cited in the application table 1	1-49
A	----- UEDA T ET AL: "Identification of coding single-nucleotide polymorphisms in human taste receptor genes involving bitter tasting." BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS. 6 JUL 2001, vol. 285, no. 1, 6 July 2001 (2001-07-06), pages 147-151, XP002301613 ISSN: 0006-291X the whole document	1-49
A	----- WO 03/008627 A (DRAYNA DENNIS ; US GOVERNMENT (US); KIM UN-KYUNG (US); LEPPERT MARK (U) 30 January 2003 (2003-01-30) the whole document	6-49
P,X	----- WO 2004/029087 A (MEYERHOF WOLFGANG ; BUFE BERND (DE); HOFMANN THOMAS (DE); KUHN CHRISTI) 8 April 2004 (2004-04-08) the whole document -----	1-49

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/019489

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0118050	A	15-03-2001	US 2002051997 A1	02-05-2002
			US 2003022278 A1	30-01-2003
			AU 773600 B2	27-05-2004
			AU 7366400 A	10-04-2001
			CA 2384777 A1	15-03-2001
			CN 1387536 T	25-12-2002
			EP 1214343 A2	19-06-2002
			JP 2003510037 T	18-03-2003
			NO 20021164 A	10-05-2002
			WO 0118050 A2	15-03-2001
			US 2004038312 A1	26-02-2004
			US 2003157568 A1	21-08-2003
WO 0177676	A	18-10-2001	AU 5125801 A	23-10-2001
			CA 2403003 A1	18-10-2001
			CN 1434921 T	06-08-2003
			DE 01924619 T1	15-04-2004
			EP 1292827 A1	19-03-2003
			JP 2003530098 T	14-10-2003
			NO 20024809 A	09-12-2002
			WO 0177676 A1	18-10-2001
			US 2004209313 A1	21-10-2004
			US 2002094551 A1	18-07-2002
WO 03006482	A	23-01-2003	CA 2452337 A1	23-01-2003
			EP 1502112 A2	02-02-2005
			WO 03006482 A2	23-01-2003
			US 2003170608 A1	11-09-2003
WO 03008627	A	30-01-2003	CA 2454566 A1	30-01-2003
			WO 03008627 A2	30-01-2003
			US 2004248123 A1	09-12-2004
WO 2004029087	A	08-04-2004	WO 2004029087 A2	08-04-2004